

control unit operates a device that links more than two participants into a single videoconference, known as an MCU.

As seen pictorially from the figures, the Howell patent does not address transportability of videoconferencing from one room to another. Although “podium” 23 appears to have some sort of casters, they are not numbered or mentioned in the patent. The disclosure suggests a device that is built into a room in which it is used. The transportability of a videoconferencing system is not addressed by the patent. Transportability does not appear in the claims as well. The words “portable,” “movable” and “cart” do not appear in the Howell patent.

Both the Howell patent and the present patent disclosure address what appears to be primarily a teaching environment. Both designs have preferred embodiment where a user, which could be an instructor, control the classroom from a single spot. Both have the goal of a central control console that is easily accessible during the conference in a way that the primary user can control the conference without serious interruption to their ability to present at that conference.

This similarity is where these two inventions end. The Howell patent disclosed an apparatus which contains a controller. This controller has specific attributes depending upon the claim. In claim 1 for example this controller must have preview display, presentation display, and a control section.

The present patent application addresses the portability of the device, and how to contain the proper equipment in an easily portable configuration. The present application could actually use the controller that is contained within the Howell patent or use a controller of different design. The equipment of the Howell patent is not a requirement for the proper operation of the device disclosed in the present patent application. Further, the drawings and discussion in the Howell patent illustrate the state of the art at the time of filing the present application as well. Most products were slated for non-transportable or not easily transportable systems, using multiple carts or cabinets to house all the equipment necessary for a videoconference.

The claims have been amended to specify that it is “A portable system for teleconferencing presentations” and that “the computer, the touch panel and the CODEC can be used without removing them from the cart” in the independent claim.

In Claim three, the limitation is added that “the first camera can be used without removing it from the cart.” In Claim 4, the limitation is added that “the second camera can be used without removing it from the cart” and in Claim 5, that “the projector can be used without disassociating it from the cart.”

Marumaya Patent 5,489,938 Television Conference Apparatus Including Picturing Device. Feb 6, 1996

The Marumya Patent teaches an apparatus for television conferencing. The key component and uniqueness of this apparatus is a compact packaging technique. This patent integrates what is now referred in the industry as a document camera (in the patent disclosure this is referred to as a material picturing device). Using a document camera within a videoconference was not unique at the time. Figure 2A and figure 2B shows a common device (a document camera), which was known in the art and would transmit document images.

The uniqueness of the patent is the integration of the device into the cabinet. This is seen as the essential component of the patent as

(3-45) “A manuscript table for placing materials and samples is provided on one side of the cabinet 24 and can be retracted into the cabinet 24. A video camera device 26 is attached, as the second camera means, to one end of an arm member 27 which arm can be retracted inside the cabinet 24. and positioned above the table 25. The essence of the patent is truly a retractable document camera. “

The need for this integration is further emphasized with every figure of the embodiments of the invention show a retractable document camera (Figures 3a, 3b, 5a, 5b, 6a, 6b, 7a, 7b, 8a, 8b.) The differences of these figures are the differences in how this camera is integrated in the cabinet.

The claims of the patent further emphasize the need for a retractable, special purpose document camera. Claim 1 states:

“An Apparatus for television conference comprising:

a cabinet comprising a plurality of compartments each accommodating one of a plurality of devices necessary for performing said television conference, said compartments being piled up so that said cabinet occupies a small space;
a manuscript table, provided to said cabinet having a table top on which an object is placed, said manuscript table being positioned against said cabinet at either one of a first position and a second position, said table top of said manuscript table is at said first position, said table top of said manuscript table being in an opened state against said cabinet when said manuscript table is at said second position; and
a handle member being fixed on said cabinet in a position under said manuscript table so as to help move said cabinet, said handle member supporting said manuscript table is at said second position so that said table top of said manuscript table is positioned in a horizontal state; and
an arm member, movably provided on said cabinet, having camera means for generating image data of an object placed on said manuscript table, said arm member enabling said camera means to be positioned either inside said cabinet, or outside said cabinet directly when said manuscript table is at said second position, said manuscript table positioned under said arm member.”

This claim is the only fundamental claim in this patent. Clearly the necessary components for this patent require a cabinet with multiple compartments; a table which can be retracted but when opened is supported by a handle, and camera which can be positioned over said table.

The present patent disclosure does not contain any of these components. The system disclosed does not necessarily contain a cabinet with multiple compartments. In one of the preferred embodiments, the device contains only one compartment.

Further, the patent disclosure does not necessarily contain a retractable table that is used as the base for the document camera, and that if there is a retractable table on the device, that table does not necessarily require a handle for support. Also the second camera is not an integral part of the cabinet, having the cabinet designed to retract the device into the cabinet. The patent disclosed uses a smaller commercial

document camera. In the preferred embodiment, the commercial document camera is placed on the work surface of the apparatus.

The Maruyama et al. patent does support the validity of the present application. It shows that there is precedence for granting a patent for videoconferencing devices, which combines a standard set of interfaces to a videoconferencing device repackaged in a unique way. This new device has unique advantages in terms of portability and functionality.

In Maruyama et al. patent, a videoconferencing CODEC, and a document camera are combined (optionally with a microphone, camera, facsimile machine, keyboard device and monitor device) in a cabinet so that they can be transported in a single cabinet.

In the present application, the same devices are combined transportability and functionality is also key. All the devices which are mentioned in the Maruyama et al. patent can be combined in the present patent application apparatus. These would include but not be limited to a Camera, a Monitor device, a microphone; a facsimile device, and a VCR. (as well as a Personal Computer) Both the Maruyama et al. patent and the present application combine these devices on a single transport device. In the present application the monitor is replaced with a projector device. (Optionally if there is a fixed monitor system in the room, the projector device does not have to be included in the apparatus.)

The fundamental difference in the design of the cabinet in the Maruyama et al. patent and the cart in the present patent application would be that the configuration in the present patent application is designed to be used by an instructor as the lectern for teaching while this was never conceived on the Maruyama et al. patent. In the present patent application, all components are in easy reach.

This configuration of the present application has many advantages which were never conceived in the Maruyama et al. patent. In the Maruyama et al. patent, the cabinet is designed for a participants in a conference room to operate the equipment from a desk in the conference room. (4-59) As can be seen from the figures showing the preferred embodiments, the operators would have to get up from where they were seated to use any of the devices transported in the Maruyama et al. patent, Moreover,

moving to that position, most probably cause the operator to be positioned out of camera view and at an very inconvenient place to see what is on the monitor. For example the document camera is on the side of the monitor. To effectively use this device the operator would have to be standing next to the monitor, very probably out of camera range and at a position, which would make it inconvenient to use the monitor. To use the facsimile machine the operator would have to be standing or crouching in front of the monitor.

The present patent application solves these problems by designing the cabinet (or cart) as the spot in which to perform the lecture. Therefore it is natural for person running the conference to be standing at the control near the document camera, facsimile machine, personal computer, or VCR. This is accomplished by placing the image of the distant end away from the cabinet rather than on it. In the preferred embodiment, the camera is placed on a tripod located at a distance away and a projector or projectors attached to the cart can be used to project the images away from the cart. Other embodiments can keep the camera mounted on the cart and/or attaching to room mounted projectors or monitors to handle the viewing of the monitor device.

In brief both the Maruyama et al. patent and the present patent application solve the same fundamental problem: the easy transportability of videoconferencing devices from one room to another. The Maruyama et al. patent solves this problem by creating a unique document camera.

The present patent application solves the problem by changing the entire usage of the portable device. The device is changed from a cabinet used to house the equipment and the monitor to a device designed as a podium for presentations. This has the following advantages:

- All devices can be used by a user without the need for moving from their location
- When the devices are used the user can retain control of conference. The user can be seen by the distant end as well as seeing other participants.
- The device can be lighter because no monitor is employed

- Again because of the lack of monitor there is a workspace available for a document camera, controller, or as a place to put documents.
- The product is inherently lighter making it easier to transport.

Conclusion

Both Maruyama and Howell, validate the uniqueness of the present patent disclosure. Maruyama demonstrates the uniqueness of a portable device. This uniqueness is born out in that Howell is not portable at all. Howell shows the need for a teaching device that allows an instructor to control the classroom from a single point. However this device is far from portable constraining the lessons to be taught in a single room. Without the portability, a school must have a special classroom, which deals primarily with distance education. This takes space, which the school may not have. Further a classroom such as this may not be conducive for learning in a primary school environment.

The Patent disclosed allows for a portable teaching system that lets the instructor control the devices necessary for teaching without moving off camera or into an uncomfortable position. The system is easily transported from classroom to classroom.

Several factor have combined to enable this apparatus. Not all of these factors are necessary for transportability but all serve to make the devices more functional and commercially viable.

- The reduction in the size of the equipment
- The reduction and increased performance of projection systems
- The use of computer networks to transmit videoconferencing. This allows wired or wireless networks that may be already in place in a school to be used for the communication between two devices. This in not a required component, since many networks can be constructed to attach video conferencing devices under more traditional networks, however is does make the devices more transportable since it is possible to move from one room to another with out special wiring that would not normally in the room.

It is believed that all of the claims are now in condition for allowance, and an early indication of the allowance of claims 1-5 is earnestly requested. Since the number and type of claims remain unchanged, no additional fee is required. A Request for Extension of Time in the third month and a check for the fee accompany this Amendment. Please charge any additional fees which may be required or credit any over payment to Deposit Account No. 20-1123.

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